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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/820,567	03/29/2001	Shih-Wei Chou	TJK/163	4951

26689 7590 05/10/2004

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EXAMINER

FLEMING, FRITZ M

ART UNIT PAPER NUMBER

2182

DATE MAILED: 05/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/820,567

Applicant(s)

CHOU ET AL.

Examiner

Fritz M Fleming

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 March 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.


FRITZ FLEMING
PRIMARY EXAMINER
GROUP 2100

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

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DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over applicants' admitted prior art Figure 1 in view of JP 11-243627 and JP 09-162919.

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The admitted prior art Figure 1 shows a network hub 4 with connecting ports 401, to which both workstations 2 and the server 1 are connected. Per applicants' discussion, the server 1 uses software control to control conduction or cutoff of each of the connecting ports 401, thereby controlling the ability of the workstations to either be connected or cutoff from the hub. Obviously, some sort of power has to be supplied, but is not discussed. Obviously, the software commands emanating from the server are put into the hub at its appropriate port 401, wherein the port 401 to which the server is connected serves as the input port module as the port 401 is mounted to the housing and adapted to be connected to the server for transmitting the conduction/cutoff commands therefrom. Obviously, some sort of signal processing circuit has to be present, connected to the power supply, so that the software commands from the server can be routed to the proper port 401 so as to output some sort of a control signal to the proper port(s) 401 to properly command the conduction/cutoff state. Obviously, some sort of output port module has to be present, coupled to the signal processing circuit, such that each of the connecting ports 401 mounted on the illustrated hub housing 4 to which workstations 2 are connected via lines 3, such that a switching circuit corresponds to a port so as to switch each port between conduction and cutoff. Thus what is lacking are specific showings of the rectifying and voltage regulating circuit, the signal processing circuit, the switching circuits being under control of the signal processing circuit, although the analysis above has shown that something corresponding to each of the circuits has to be present in order for the admitted prior art device to function as described by applicants.

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JP 11-243627 teaches that it is old and well known in the hub art to use a built-in Ac to Dc converter 9 which in turn supplies control circuit block 8 and thus the remaining blocks so as to be able to power the hub internal circuitry from a standard AC power cord connection 4. Obviously, part of the AC/DC conversion involves some sort of regulation, as without regulation, damage to the hub would be possible due to voltage fluctuations.

JP 9-162919 teaches that it is old and well known in the art to change the connection status of ports via a changeover instruction, due to the reception section 22 receiving and analyzing a changeover instruction and gives the result to changeover sections 23. Per the translation [0004], previously an abnormal occurrence required a manual disconnection at the hub. However, due to the use of reception section 22, each change section 23 can control the connection of the port to either bus 21-1 or 21-2. Thus a port is either connected to 21-1 or disconnected from 21-1, under command of the reception section 22. For example, port #1 is connected to a terminal [0027 and Figures 7a-c] which transmits a bus change to terminal port#5 such that the terminal 32 connected to port#5 is disconnected from the other terminals so it has no influence on the other terminals 32. Thus it is taught to use a signal processing circuit 22/42 which is coupled to input port module 1 to be connected to the device which commands the changeover. Furthermore, an output port module 23/43 /44/45 is coupled to the processing module 22/42 so that the switching circuits 23/43 connected to the corresponding ports and thus the corresponding workstations are either connected to a desired bus (i.e. 21-1/21-2 or 41-1/41-2) or disconnected therefrom, in either the

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conducting or cutoff condition. Furthermore, for example, a signal enhancing circuit can be construed to be the register 44, as it is in the hub housing and interconnects the processing circuit 42 and the switching circuits 43 and enhances the signals from 42 to 43 via the value in 44 determining the status of each switch 43.

Therefore it would have been obvious to one having ordinary skill in the art at the time that the invention was made to modify the applicants' admitted prior art Figure 1 per the teachings of JP 11-243627 and 09-162919 in order to provide concrete examples of the described functionality. JP 11-243627 teaches the use of an AC power cord supplying power to an internal AC/DC converter, thereby reducing the required mounting space [0003], thereby providing motivation for an internally mounted rectifying and regulating circuit. JP 09-162919 shows how a device connected to port 1 can command individual ports to be connected or cutoff from a common bus, via an enhancement and signal processing circuits, along with input and output port modules. Benefits are easy separation of each terminal connected to a port [0007], thereby providing motivation for the combination. Thus the teachings of JP 11-243627 and 09-162919 to the admitted prior art Figure 1, results in the server being connected to port#1 such that it, via the prior art software commands, can effectively and easily separate each terminal connected to a port, while having a compact size due to an internal power supply.

5. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over the applicants' admitted prior art in view of JP 11-243627 and 09-162919 as applied to claims 1 and 3 above, and further in view of Kondo EP 928087.

The above combined references lack the claim 2 switch connected to each switching circuit for independent control of the port conduction/cutoff status.

Kondo teaches the missing element, that being the manual switch 24 for selecting the A/B bus to which each port the workstations is connected to. Note also the use of a server 2 in Figure 2. The switching hub 12 switches over hub units, and thus connects/disconnects a workstation to either A or B, via the manual switch 24, to control the individual relay switches connected to each port.

Therefore it would have been obvious to one having ordinary skill in the art at the time that the invention was made to modify the applicants' admitted prior art in view of JP 11-243627 and 09-162919 per the teachings of Kondo so as to be able to control the state of each port via individual switches in the form of relays or solid state relays so as to be able to manually control a bus switchover via a front panel mounted switch. The modification to do so is found in Kondo [0032-33] so as to be able to quickly handle a switch over without needing specific maintenance staff intervention. Kondo clearly shows a switch 21 determining the connection/cutoff state of each port 27c to either 27a/b such that per [0031] an electrical cut from A to a switch to B, or as in [0032] to completely cutoff A.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kondo '080 is a US equivalent. WO 96/30840 shows a select switch. Clark et al. show a peripheral lock. Cornils teaches a channel isolation. Slemmer shows an Ethernet switch. Helles et al. teach a network switch.

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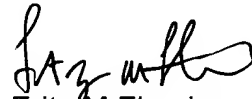
Viswanadham et al. teach a multi-layer switch. Specht teaches a secure port switch. Melvin teaches port configuration. Christensen et al. patents teach a LAN switch. De Nijs show a switch. Boulter teaches a port enabled/disabled setup. Rietkerk teaches a coupling module. Freyman et al. teach a lock-out. Roberts, Jr. teaches a switch 34. Lewis teaches a secure interface. Martin et al. teach a bypass device. WO 00/11846 teaches a data link gating element. Yoshida teaches a remote switch. Simpson et al. teach a secure switch. Welcher et al. teach an access prevention device. The INTEL documents teach a hub and its management module. IBM TDB teaches an Ethernet port switch. GB 2337840 shows a lockout. JP 8-18582 shows an enable-disable port control. JP 11-088405 shows Ethernet hub management. JP 11-154566 shows a key lock out. JP 2002-271360 shows a LAN-WAN disconnect switch.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fritz M Fleming whose telephone number is 703-308-1483. The examiner can normally be reached on 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey Gaffin can be reached on 703-308-1483. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Fritz M Fleming
Primary Examiner
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fmf